

FOLDING COLLAPSIBLE GOLF CART

BACKGROUND AND SUMMARY OF THE INVENTION

5 The present invention relates to a folding collapsible golf cart and, more particularly, to such a folding collapsible golf cart, which enables the upper and lower main shafts as well as the links to be received to the bottom frame between the wheels when unlocked a folding-control rod member.

10 Regular golf carts include motor-driven type golf carts and hand-push type golf carts. Figure 1 shows a conventional motor-driven type golf cart **91**. Due to the arrangement of an additional front wheel **911** and a motor drive **912**, this structure of motor-driven type golf cart **91** is bulky and heavy, not convenient for packing and delivery. When folded up the upper main shaft **913**
15 and the lower main shaft **914**, the collapsed golf car **91** still occupy much storage space. Figure 2 shows a conventional hand-push type golf cart **92**. According to this design, the upper main shaft **921** and the lower main shaft **922** can be folded up when unlocked the lock **920**. When folding the upper and lower main shafts **921** and **922**, the links **923** and **924** will be forced to move
20 the two wheel holder frames **925** and **926** toward each other. The folding operation of this structure of golf cart is still not convenient. Further, when folded up, the collapsed golf cart still occupies much storage space.

 The present invention has been accomplished under the

circumstances in view. It is the main object of the present invention to provide a folding golf cart, which can conveniently smoothly be folded up. It is another object of the present invention to provide a folding golf cart, which keeps the major parts received in between the wheels to minimize space occupation.

5 According to one aspect of the present invention, the folding golf cart comprises a folding-control rod member and a locking device adapted to lock the folding-control rod member. When unlocked the locking device, the folding-control rod member can then be turned and received to the bottom frame, for enabling the upper and lower main shafts and the links to be received
10 to the folding-control rod member and the bottom frame between the wheels.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of a folding collapsible motor-driven
15 type golf cart according to the prior art.

Figure 2 is a perspective view of a folding collapsible hand-push type golf cart according to the prior art.

20 Figure 3 is a perspective view of a folding collapsible golf cart according to the present invention.

Figure 4 is an enlarged view of a part of the folding collapsible golf cart according to the present invention.

Figure 5 is an enlarged view of another part of the folding collapsible golf cart according to the present invention.

Figure 6 is a perspective view of still another part of the folding
5 collapsible golf cart according to the present invention.

Figure 7 is a sectional assembly view in an enlarged scale of a part of the folding collapsible golf cart according to the present invention.

10 Figure 8 is similar to Figure 7 but showing the control button pressed.

Figure 9 is similar to Figure 8 but showing the folding-control rod member turned away from the locking device.

15 Figure 10 is a perspective view showing the folding collapsible golf cart collapsed according to the present invention.

Figure 11 is a perspective view of an alternate form of the present invention.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figures 3~6, a folding collapsible golf cart is shown comprising:

a hollow upper main shaft **1**;

a handle **11** axially slidably inserted into the upper main shaft **1** from the front side and locked by a lock **10** at the upper main shaft **1** (see Figure 6),

5 having a grip **111** disposed at one end outside the upper main shaft **1**;

an upper bag cradle **12** fixedly provided at the upper main shaft **1**;

a lower main shaft **2**, the lower main shaft **2** having one end
10 longitudinally pivotally coupled to one end of the upper main shaft **1** remote from the handle **11** and the other end provided with a front wheel assembly **22**;

a wheel axle **3** holding a pair of wheels **30** and rotatable by a motor drive **31**;

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two connecting blocks **4**;

a bottom frame **5**;

20 a lower bag cradle **21** fixedly provided at the lower main shaft **2** near the front wheel assembly **22**;

a coupling frame **6**; and

upper and lower links **71** and **72**;

wherein:

5 the upper main shaft **1** has a lower part coupled to one end **711** of the upper link **71**, a bottom end pivoted to the upper end of the coupling frame **6** by a pivot **13**, and an upper part coupled to one end **721** of the lower link **72**, a upper end pivoted to the lower end of the coupling frame **6** by a pivot **23**;

10 a folding-control rod member **8** is provided having one end **81** pivotally connected to a middle part **61** of the coupling frame **6**, the other end **82** fixedly provided with a side lug **820**, which is pivotally coupled to a middle part of the bottom frame **5** by a pivot **821** for enabling the folding-control rod member **8** to be turned and received to the bottom frame **5**, and a locating
15 device **83**, which can be locked by a locking device **80** to stop the folding-control rod member **8** from moving toward the bottom frame **5**;

 the links **71** and **72** each have one end **711** or **721** respectively pivoted to the upper main shaft **1** and lower main shaft **2**, and the other end **712**
20 or **722** respectively pivoted to two opposite sides of the locking device **80**;

 the connecting blocks **4** each have a bottom end **41** respectively sleeved onto the wheel axle **3**, and a top end **42** respectively fastened to the two

distal ends of the bottom frame **5**.

When wishing to collapse the golf cart, unlock the lock **10** for enabling the handle **11** to be received in the upper main shaft **1**, and then
5 unlock the locking device **80** to release the locating device **83** of the folding-control rod member **8** (see Figure 8), for enabling the rod member **8** to be received to the bottom frame **5** (see Figure 9), and then turn the upper and lower main shafts **1** and **2** and the links **71** and **72** downwards and received to the folding-control rod member **8** and the bottom frame **5**.

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Referring to Figures 5 and 7~9, the locating device **83** of the folding-control rod member **8** is a cylindrical member insertable into the locking device **80**, having a locating groove **831** extended around the periphery. The locking device **80** comprises a casing **84** fixedly fastened to one side **50** of
15 the bottom frame **5** by a fastening member **800**, a control button **85** movable in the sliding slot **841**, and a locking plate **86** extended from the control button **85**. The casing **84** has a sliding slot **841**. The locking plate **86** has an engagement device **862** adapted to engage the locating groove **831** of the locating device **83**.
When moving the control button **85** downwards, the engagement device **862**
20 will be forced into engagement with the locating groove **831** of the locating device **83** to lock the folding-control rod member **8**. On the contrary, when moving the control button **85** upwards, the engagement device **862** will be disengaged from the locating groove **831** of the locating device **83**, for enabling

the folding-control rod member **8** to be turned toward the bottom frame **5**.

Figure 11 shows an alternate form of the present invention. This embodiment eliminates the aforesaid connecting blocks, front wheel assembly, motor drive, and wheel axle, and has two wheel holders **40** respectively provided at the two distal ends of the bottom frame **5** to hold the wheels **30**.

As indicated above, the invention has the following advantages:

- 10 1. When released from the locking device **80**, the folding-control rod member **8** can then be received to the bottom frame **5**, for enabling the upper and lower main shafts **1** and **2** and the links **71** and **72** to be turned downwards and received to the folding-control rod member **8** and the bottom frame **5**.
- 15 2. When folded up, the collapsed golf cart requires less storage space, convenient for carrying. Because the major parts of the golf cart are received in between the wheels **30** when collapsed, the collapsed golf cart can conveniently be packed for delivery.
- 20 3. The folding design of the present invention is applicable to a motor-driven golf cart as well as a hand-push type golf cart.